

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

1. (currently amended) An apparatus for immediately outputting ~~a the~~
5 response of a synchronous system to an asynchronous event, comprising:
a synchronous system configured to receive an asynchronous event at its
input after synchronization of the asynchronous event at its input to
produce an output signal at its output;
an advanced calculation unit ~~that calculates~~ configured to calculate an
10 asynchronous output signal identical to the output signal that will be
output by the responses of the synchronous system in response to
the possible asynchronous event provided at an input of the
advanced calculation unit, the asynchronous output signal being
calculated events in advance of the synchronous system producing
15 the output signal; and
a switching device that selectively passes on the asynchronous ~~an~~ output
signal from the advanced calculation unit device ~~or the an~~ output
signal from the synchronous system.
- 20 2. (currently amended) The apparatus as claimed in claim 1, wherein
the switching device has at least two input connections, one of the at least
two input connections is connected to the an output connection of
the synchronous system, and at least one of the at least two input
connections is connected to the output ~~connection~~ of the advanced
25 calculation unit.
- 3 (previously presented) The apparatus as claimed in claim 2, wherein

the switching device has a control connection, via which the input signals intended to be passed on by the switching device are defined.

4. (currently amended) The apparatus as claimed in claim 1, wherein

5 the apparatus is configured to output the asynchronous output signal from the advanced calculation unit in response to the an occurrence of the an asynchronous event.

5. (currently amended) The apparatus as claimed in claim 1, wherein

10 the apparatus is configured to output the output signal from the synchronous system as soon as the output signal from the synchronous system represents a response to the asynchronous event after synchronization ~~an event that was previously responded to by outputting the output signal from the advanced calculation~~
15 ~~unit.~~

6. (currently amended) The apparatus as claimed in claim 1, wherein

the synchronous system is configured to output the output signal a
~~response to an event requiring a response~~ within a first period of
20 time to provide the advanced calculation unit device a sufficient amount of time after the first period of time to calculate an asynchronous output signal to a next asynchronous event at its input ~~predict a response of the synchronous system to a next event before the next event occurs.~~

7. (currently amended) The apparatus as claimed in claim 1, wherein

the advanced calculation unit device is configured to complete advanced calculations, before the synchronized asynchronous event is

provided to the input of the synchronous system ~~occurrence of an event for which a response of the synchronous system needs to be calculated in advance.~~